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ABSTRACT

This study was conducted to determine whether the educational degree of mathematics instructors at New York City Technical College was a significant factor in students' perceptions of teacher effectiveness. A 10-item student opinion survey was distributed to 738 students enrolled in 44 mathematics classes. Instructors with doctoral degrees taught fourteen of the classes; the other 30 classes were taught by faculty whose highest educational degree was a master's. The results of a t-test determined no significant difference between the effectiveness of instructors with doctorates and masters degrees. To gain further insights, the Scheffe's Test for Multiple Comparisons was completed, as was a one-way ANOVA that subdivided instructors into four categories (Doctorates in Mathematics, Doctorates in Mathematics Education, Masters in Mathematics and Masters in Mathematics Education). No significant instructional differences were found among these groups. Study results imply that the present doctoral degree requirements used in hiring new faculty be less stringent. Furthermore, instructors with degrees in mathematics education appear to have an effective mix of academic training and pedagogical experiences necessary for teaching at an inner city open-enrollment college. (Contains 16 references.) (Author/AS)

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ED 425 765

A STUDY OF STUDENT EVALUATIONS OF THE EFFECTIVENESS OF MATHEMATICS FACULTY HOLDING DIFFERENT EDUCATIONAL DEGREES

by
Dr. Johanna Ellner
Professor of Mathematics
New York City Technical College

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A Study of Student Evaluations of the Effectiveness of Mathematics Faculty Holding Different Educational Degrees

By
Dr. Johanna Ellner
Professor of Mathematics
New York City Technical College

ABSTRACT

The doctorate degree has been the prerequisite for a successful career in college teaching. Throughout history the educational elitists theory for educators has not been questioned, even though student populations and teaching styles have changed considerably over the years. In this study the results of student evaluations of faculty were used to determine whether the educational degree of a mathematics instructor at New York City Technical College was a significant factor in students' perceptions of an instructor's effectiveness.

A ten-item student opinion survey was distributed to 738 students enrolled in forty-four mathematics classes. Instructors with doctorate degrees taught fourteen of the classes, and the other thirty classes were taught by faculty whose highest educational degree was a masters. The results of a t-test determined no significant difference between the effectiveness of instructors with doctorates and masters degrees existed. To gain further insights a one-way ANOVA subdividing instructors into four different categories (Doctorates in Mathematics, Doctorates in Mathematics Education, Masters in Mathematics and Masters in Mathematics Education) was undertaken. Again the results indicated no significant difference of the instructors in these groups. The Scheffe's Test for Multiple Comparisons of instructors with different educational degrees again determined no noteworthy difference between the effectiveness of these four categories.

The effectiveness ratings of full and part-time mathematics faculty members were compared disregarding the instructors' highest educational degree. The results of a t-test indicated no significant difference between the mean SOS Ratings of these two groups.

The results of this study imply that the present doctoral degree requirements used in the screening process to hire new faculty be less stringent. Furthermore, instructors with degrees in mathematics education appear to have the proper mix of academic training and pedagogical experiences necessary to teach in an inner city open-enrollment college.

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INTRODUCTION

New York City Technical College (City Tech) was established in 1947 as the New York State Institute of Applied Arts and Sciences. Over the past fifty-one years, through various political and educational changes, the school has evolved into the only technical college within the City University of New York and is unique, within City University, in that it offers both associate and baccalaureate degree programs.

The mission of New York City Technical College is to meet the needs of its varied urban constituencies through rich and diversified curricula emphasizing career education. Students entering the college have varying abilities and educational backgrounds. As a result of this open enrollment policy, the academic level of the majority of the student body is well below that of traditional college freshman. Most full-time faculty members are required to have doctoral degrees for tenure and promotion.

The purpose of this study was to determine if there existed a significant difference in the teaching effectiveness of mathematics department faculty members at City Tech holding different educational degrees. Effectiveness was determined according to student evaluations of instructors.

BACKGROUND AND SIGNIFICANCE

The academic preparation for college instructors has varied throughout the history of higher education. During each period of history, the academic requirements mirrored the collegiate policy. The early American colleges were attended by students from high

socioeconomic groups who followed a fixed and limited religious and liberal arts curricula, patterned after the English system. The faculty was simple and somewhat romantic figures, who were rarely scholars (Rudolph: 1962).

In this early college period, instructors were judged effective on the basis of their faith, conviction and ability to relate to others. Theological training was the major prerequisite for employment. The faculty consisted of a few professors and numerous tutors. Tutors were usually persons who had recently completed their studies for the bachelor's degree. The faculty of tutors was unique since most instructors were not interested in making teaching their profession; it was mainly an interim form of employment while they were waiting some other calling usually as a member of the clergy. All instructors learned to teach by teaching. It was assumed that the only preparation needed to teach was advanced knowledge of the subject. Today this requirement of having expertise in one's subject area is still the main criteria for gaining employment as a college professor.

The developments in science, industrial growth and specialization brought many changes to college curricula. The Morrill Act of 1862 aided in the establishment of a large number of state educational and research institutions. This movement necessitated hiring new faculty who were required to have Doctoral Degrees became in academia this degree was considered the indicator of academic respectability, professional competence and exposure to scientific Germanic scholarship (Rudolph 1962).

Today the Doctorate is still necessary for a successful career in college teaching. Institutions of higher education seek faculty with doctorates because the number of Doctors on the faculty and the list of the faculty's scholarly publications determine the

prestige of an institution (Trow, 1984). By making the doctorate a prerequisite for employment colleges and universities feel assured that instructors have a mastery of the subject matter being taught. Although faculty members holding doctoral degrees are considered highly educated, the attainment of this degree does not ensure that the recipients will exhibit the close moral and sympathetic personal touch which so many of today's students need.

Throughout history the educational elitist theory for educators has rarely been questioned, even though student populations and teaching styles have changed considerably over the years. In the field of higher education the motto has been and continues to be "publish or perish." Faculty promotions, tenure and salary increases are dependent upon scholastic achievements, rather than upon success in the classroom. Research and teaching are both important criteria for faculty members and ideally should supplement each other, but the importance of research has grown and continues to grow out of proportion to that of teaching.

Meacham, (1993) suggests that Universities rethink the relationship between scholarship and instruction since these institutions reward professors for success in research and fail to punish them for failure in teaching. Universities need to recognize that some good teachers are not good researchers and than some talented scholars are not suited for teaching (Astin, 1995)

In the present American post-industrial society, industrial growth and egalitarianism have a major impact upon the purposes of a college education. The mission of higher education today is to fully develop American's human resources, in order to open the door to social, economic and political progress for graduates.

Community Colleges and Technical Institutions, similar to City Tech, have been established to provide programs that cater to the needs of the general public in contract to institutions with high admission requirements designed to meet the needs of the educational elite.

Community colleges are "institutions free from historical links to upper classes, closer to the world of work, and thus, with an intellectual climate more attractive to the working-class students (Throw, 1984)." New York City Technical College is such an institution and offers diversified educational programs to meet the needs of its varied urban constituencies.

In this study results of student evaluations were used to determine whether City Tech mathematics faculty holding doctoral degrees are more effective instructors than those holding lesser degrees. The process of using student evaluations to determine teacher effectiveness is a procedure dating back to medieval times (Baldwin, 1971). In Bologna instructors were dependent upon student fees for their sustenance. Ineffective instructors were soon put out of work. Today student evaluations of faculty are being used by an increasing number of universities and colleges to determine effectiveness. In fact since 1980, eighty percent of Liberal Arts colleges have used systematic student ratings as all or part of the means for evaluating teaching (Langbein, 1994, Royalty, 1997). But considerable debate continues over the usefulness of student evaluations.

According to Crader and Butler (1996), Van Allen (1982), and Orpen (1980), the use of student evaluations affords a powerful device for describing teacher effectiveness. Fodman (1983) studied the research pertaining to student ratings of faculty effectiveness from 1973 – 1983. A consistent finding over this decade was the high reliability rate of

the student ratings. Fodman contends that students have sufficient knowledge and/or sophistication to properly evaluate their instructors. There are researchers who disagree. Archibold (1998), Langbein (1994) and Menefee (1983) contend that student's perception of overall teaching performance is very strongly aligned with feelings about the course. Royalty (1997) argues that student judgements of instructors reflect popularity and other factors unrelated to teaching excellence. However, despite views to the contrary, a general overview of the literature pertaining to student evaluations of instructors effectiveness reflect the fact that these inquiries offer a useful means of assessing the quality of instruction in most instances.

A search of the literature indicates that no studies have been undertaken seeking to correlate teacher effectiveness with the instructor's academic degree. Koerin (1980) contends that the compatibility of research with teaching, and the impact of research on teaching effectiveness, has not been established conclusively.

PROCEDURES

In an effort to determine whether the educational degree held by an instructor of mathematics at New York City Technical College is a significant factor in the student's perceptions of such an instructor's effectiveness, the following procedures were employed:

Population and Sample

Every semester a sample of City Tech students is asked to evaluate members of the faculty. A questionnaire, The Student Opinion Survey (SOS) (Appendix A) is distributed to obtain attitudinal data. The results of this survey were used in this study.

During the fall, 1996 semester the chair of the mathematics department randomly selected two classes from each faculty member's program. The surveys were distributed to the 738 students attending these classes. Of the forty-four mathematics classes selected, faculty with doctorates taught fourteen and thirty received instruction from faculty with masters degrees.

Implementation

The Student Opinion Survey (SOS) is the standard instrument used by the college to determine students' opinions of instructors. This instrument was developed and tested for reliability and validity by the Institutional Research and Analysis Office at the College.

Students attending the mathematics classes used in this study evaluated the effectiveness of instructors during the 9th week of the fifteen-week of the semester. Students were asked to rate effectiveness of the mathematics instructors by responding to the following statements:

1. The instructor communicated in a way I understood
2. The instructor held my interest and attention in class.
3. The instructor took the time to explain the material when students did not understand.
4. Students were encouraged to ask questions and were given meaningful answers.
5. Students were encouraged to express their own ideas and/or participate.
6. The instructor treated students with courtesy and respect.
7. The instructor was available to students for discussions or conferences.
8. The instructor generally met the class on time and held class to the end of the period.

9. The instructor spoke clearly and could be heard in class

10. The grading system for the course was clearly explained.

11. Overall the instructor's teaching was effective.

A Likert Scale employing the ratings of: excellent, very good, satisfactory, unsatisfactory, and does not apply, was used.

In order to ensure uniformity in the administration of the questionnaire, instructors of the selected classes were asked to read a prepared script to the students. The script (Appendix B) explained the purpose of the study and requested students to answer the questions carefully and honestly. The responses to the questionnaires were anonymous. The instructors were directed to choose a student representative to collect the completed forms and deliver the responses to the office of the Liberal Arts Division Dean. While the students responded to the questionnaire faculty were asked to be unobtrusive in order not to prejudice the evaluations.

Analysis of the Data

The following numerical values were assigned to each of the possible responses: (4) strongly agree, (3) agree, (2) neutral (1) disagree, and (0) strongly disagree.

The instructor's effectiveness in each area was determined by the students' evaluations in the following manner. The numerical values assigned to the responses to the first question were totaled and the sum divided by the number of respondents. The resulting mean determined effectiveness value for question one. This process was repeated for each of the other ten questions and resulted in eleven effectiveness values. The average of these eleven effectiveness values determined an instructor's SOS Rating.

This process was undertaken for the forty-four instructors involved in the study. The resulting ratings were then grouped according to the faculty members' highest academic degree.

Analysis of Effectiveness of Instructors with Doctoral and Masters Degrees

A two-tailed t-test was performed to determine if there was a correlation between an instructor's rating and the highest educational degree obtained by the faculty member. The teachers were divided into two categories, those with doctoral degrees and those with only masters degrees. Fourteen teachers belonged to the former category and thirty to the latter. The SOS Ratings of the instructors in each of groups were compared using a t-test for independent samples. It was assumed that variances of these two samples were unequal due to the difference in sample size.

Null Hypothesis 1. There is no significant difference in the effectiveness of mathematics instructors with doctoral degrees and only masters degrees on the basis of the Student Opinion Survey Ratings.

Alternate Hypothesis 1. There is a difference in the effectiveness of mathematics instructors holding doctoral degrees and only masters degrees on the basis of the student ratings.

Analysis of Effectiveness of Instructors with Doctoral Degrees in Mathematics Education with Instructors with Masters Degrees in Mathematics Education

A one-way ANOVA was undertaken to analyze the SOS Ratings of the faculty when instructors were divided into four groups according to highest degree (Doctorate in Mathematics, Doctorate in Education, Masters in Mathematics and Masters in Education). The data was grouped according to these educational criteria to determine if

there was a significant difference in the ratings within and between these four groups. Nine mathematics instructors had doctorates in mathematics and five held doctorates with concentrations in mathematics education. Masters degrees in mathematics were the highest educational degrees of ten faculty members while twenty teachers had masters in mathematics education.

Null Hypothesis 2. Within each of the four educational degree categories there is no significant difference in the instructors' ratings.

Alternate Hypothesis 2. There is a difference in the effectiveness of instructors holding different types of educational degrees as measured by the instructors' rating.

In each of these statistical analyses the significance level was set at 0.05.

ASSUMPTIONS and LIMITATIONS

The responses of the sample population were assumed to reflect the attitudes of all students taking mathematics at New York City Technical College. It was also assumed that the data obtained from the questionnaires produced an adequate amount of information to allow for proper conclusions and that students participating in the survey answered the questions carefully and honestly. It was believed that the faculty participating in this study followed the directions prescribed with regard to the distribution and collection of the questionnaires.

With regard to the questionnaire itself, it was assumed that the College's Department of Institutional Research performed the procedures necessary to establish the reliability and validity of the survey instrument. This questionnaire has been used at the college for the past five years.

The questionnaires were distributed during the latter part of the semester. Therefore, the respondents were only students who had not withdrawn prior to the 9th week of the semester.

There are various limitations in the design of this study since the Likert scale limits the responses and the order of the questions may elicit positional contamination.

RESULTS

The study is based on the responses of 738 students attending forty-four mathematics classes. The five major courses offered by the Mathematics Department are: Elementary Algebra and Geometry (MA 175), Intermediate Algebra and Trigonometry (MA 275), Pre-Calculus (MA375), Calculus (MA475), and Elementary Statistics (MA 180).

In Table I the distribution of classes in the sample with the Department's total course offerings during the fall, 1996 are compared. The forty-four classes responding to the questionnaire represented the courses offered by the department in macrocosm. In the MA 180, 275 and 375 courses there was only a one-percent difference between the distribution of courses in the sample and the distribution of courses offered by the department. Due to the class selection process used in this study questionnaires were not distributed in the following courses: MA 250 (Introduction to Computers for Mathematical Applications), MA 575 (Calculus II), MA 675 (Calculus III) and MA680 (Differential Equations). These higher-level elective courses represent only eight-percent of the department's offerings.

Table I

Comparison of the Distribution of Classes in the Study with the Distribution of Classes Offered by the Mathematics Department in the Fall, 1996

Course	Sample		Department Offerings	
	N	%	N	%
MA 180	3	7	8	8
MA 175	16	36	34	33
MA 275	11	25	27	26
MA 375	6	14	13	13
MA 475	8	18	12	12
Others (MA 250, 575, 675, 680)	0	0	8	8
Totals	44	100.0	102	100.0

The highest educational degree held by an instructor does not determine course assignments in the mathematics department at City Tech. Table II indicates the breakdown, by highest educational degree, of the instructors teaching the forty-four classes participating in the study. Fourteen of these instructors had Doctorates in either Mathematics or Education and thirty had Masters Degrees with concentrations in Mathematics or Mathematics Education.

Table II

Distribution of the Classes in Sample Classified According To Instructor's Highest Educational Degree

Course	Highest Educational Degree			
	Doctorate in Mathematics	Doctorate in Mathematics Education	Masters in Mathematics	Masters in Mathematics Education
MA 180	0	1	1	3
MA 175	3	2	3	7
MA 275	1	1	3	5
MA 375	2	0	1	2
MA 475	3	1	2	3
Totals	9	5	10	20

In order to determine if there was a significant difference between the effectiveness of instructors with masters and doctoral degrees teaching the various departmental courses a two tailed t-test with a significance level of 0.05 was used. The SOS Ratings of instructors holding different degrees was used as a variable. Since the variances of the two groups of SOS Ratings were assumed to be unequal the degree of freedom was determined by the Welch technique. The results, reported in Table III, yielded $t = .333$ when $df = 36$. The null hypothesis was not rejected and therefore no conclusion could be reached regarding the effectiveness of mathematics instructors at City Tech holding different educational degrees. The mean SOS Rating (effectiveness) of instructors with Doctoral Degrees was 2.905 and the mean of instructors with masters was 2.9444, the difference between these means scores was found to be insignificant at the 0.05 level.

Table III

Comparison of Effectiveness of City Tech Mathematics Faculty with Masters and Doctorate Degrees on the Basis of Student Opinion Survey Ratings

	Doctorate	Masters
N	14	30
Means	2.905	2.944
Standard Deviation	0.317	0.434
t = -0.333	DF = 36	

To clarify these findings further a one-way ANOVA was used. The instructors were divided into four categories according to highest educational degree: Doctorate in Mathematics, Doctorate in Mathematics Education, Masters in Mathematics and Masters in Mathematics Education. The research question sought to determine if there was any significant difference in the SOS Ratings between and within these four groups. The resulting F ratio of 0.660, as indicated in Table IV, was not significant at the 0.05 level. The null hypothesis was not rejected and no conclusion could be drawn regarding the effectiveness of mathematics faculty at City Tech holding four different types of educational degrees.

Table IV

Student Opinion Survey Ratings of Instructors with Different Educational Degrees

Source	DF	Sum of Squares	Mean Square	
Between Groups	3	0.321	0.107	
Within Groups	40	6.475	0.162	
Totals	43	6.937		F = 0.660

Degree	N	Means
Doctorate in Mathematics	9	2.802
Doctorate in Mathematics Education	5	3.090
Masters in Mathematics	10	2.892
Masters in Mathematics Education	20	2.9

The Scheffe Method for multiple comparisons of different sized samples was applied to the data. The results, reflected on Table V, indicated that none of the F scores was above the cut off value of 8.52. The highest differential, a 1.644 F score was found between the SOS Ratings (effectiveness) of instructors holding Doctorates in Mathematics and instructors with Doctorates in Mathematics Education.

Table V

Scheffe's Test for Multiple Comparisons of Instructors with Different Educational Degrees

Group versus Group	F – Score
Doctorate in Mathematics versus. Doctorate in Mathematics Education	1.644
Doctorate in Mathematics versus Masters in Mathematics	0.236
Doctorate in Mathematics versus Masters in Mathematics Education	1.073
Doctorate in Mathematics Education versus Masters in Mathematics	0.807
Doctorate in Mathematics Education versus Masters in Mathematics Education	0.359
Masters in Mathematics versus Masters in Mathematics Education	0.247

DISCUSSION, IMPLICATIONS AND RECOMMENDATIONS

This Study was undertaken to compare the effectiveness of mathematics faculty members using student opinion survey ratings. Mathematics instructors were categorized according to the type of educational degrees held by the instructor.

An analysis of the date indicated no significant difference between the ratings of mathematics faculty with doctoral and masters degrees. A further subdivision of instructors, according to specific type of degree (Doctorates in Mathematics or Mathematics Education and Masters in Mathematics or Mathematics Education), again indicated no significant difference between the mean SOS Ratings.

There was no significant difference in the mean SOS Ratings for any of the teaching categories established in this study. However, it was noted that instructors with concentrations in education at both the doctoral and masters levels had higher ratings then faculty with degrees in pure mathematics.

The higher effectiveness ratings of instructors with educational training may be due to the weak mathematical backgrounds of City Tech students. Over fifty percent are required to complete at least one remedial mathematics course prior to taking any credit level course given by the Mathematics Department (New York City Technical College Data Core, 1998). Students with mathematics deficiencies may need instructors with pedagogical skills. A graduate degree in pure mathematics indicates an essential knowledge of the subject area, which is not a disadvantage, but if the instructor is primarily interested in research this attitude is not a strong teaching asset. The PhD. system exacerbates this situation because it illogically trains college teachers by requiring them to engage in solitary, labor intensive, research projects not necessitating the development of interpersonal skills.

The findings of this study should be helpful for committees responsible for hiring faculty. College enrollments are increasing as a result to the rise in the 1970's birthrate and a large number of faculty members are retiring. More individuals will be sought to

fill these positions. The Claremont Graduate School Study has shown that in the next 25 years the system of higher education is going to require 500,000 new faculty (Hairston, 1985). The evaluation of the candidates for these new positions must be based on the needs of students attending the colleges and universities. In many instances students need instruction in basic-skills and are primarily interested in job training not intellectual growth. These new situations that exist in higher educational system today should be addressed in the design of the faculty structure.

The procedure for hiring mathematics faculty at City Tech requires a screening process. All candidates are required to have a PhD in Mathematics. The findings of this study indicate the weakness of using this one criterion. Further investigations are recommended to improve the selection process. An outstanding mathematics instructor at City Tech should have a through knowledge of the subject matter and in addition, the ability to communicate this knowledge to students using methods appropriate for students attending an inner city open-enrollment technical college. To establish an effective mathematics department it is necessary to select new faculty members who exhibit both intellectual and pedagogical competencies.

This study should be repeated to determine how the same teachers would be evaluated in different courses or in the same course taught to different students. Assuming that student evaluations provide valid information about: teaching methods, faculty interest in students, and student enthusiasm of the course content, it is suggested that further study be undertaken to determine mathematics faculty effectiveness on the basis of student achievement. Students cannot evaluate faculty competence in subject

matter and accuracy of content or scope of the presented materials, but the academic achievement of students gives insight into teacher effectiveness in these areas.

References

Astin, Alexander W, and Mitchell Chang. "Colleges than Emphasize Research and Teaching" Change. September/October 1995, pp. 44 –49.

Baldwin, John W. The Scholastic Culture of the Middle Ages 1000-1300. Massachusetts: D.C. Heath and Company, 1971.

Crader, Kelly W. and John K. Butler, Jr. "Validity of Student's Teaching Evaluation Scores: The Wimberly-Faulkner-Moxley Question." Educational and Psychological Measure. 56 April 1996 pp. 304 –14.

Fodman, John. "Student Ratings of Faculty Teaching Effectiveness." A paper presented at the Annual Meeting of the Association for the Study of Higher Education. (Washington, D.C.) March 25-26, 1983.

Hairston, Maxine. "We're Hiring Too Many Temporary Instructors." The Chronicle of Higher Education. April 17, 1985, p. 80.

Koerin, Beverly B. "Teaching Effectiveness and Faculty Development Programs." The Journal of General Education. 32 Spring 1980, pp. 40-51.

Langbein, Laura. "The Validity of Student Evaluations of Teaching". Political Science and Politics. 27 September 1994, pp. 545 –53.

Meacham, Jon. "Class Dismissed." The Washington Monthly. 25 May 1993, pp 42 –46.

The Menefee, Robert. "The Evaluation of Teaching." Journal of College Science Teaching. 13 March, 1983 p. 3.

New York City Technical College. Datacore, 1998.

Orpen, Christopher. "Student Evaluation of Lecturers, as an Indicator of Instructional Quality: A Valid Study." Journal of Educational Research. 72, September-October 1980 pp. 5-7.

Randal, Archibold. "Give me an A." New York Times. May 24, 1998, section 4, page 5.

Royalty, Joel. "The Halo Effect and Student Evaluations of Instructors." Perceptual and Motor Skills. February, 1997, pp. 345 – 6.

Rudolph, Frederick. The American College and University. New York: Vintage Books, 1962.

Trow, Martin A. "The Analysis of Status." In Perspectives of Higher Education. Ed. Burton R. Clark. California: University of California Press, 1984.

Van Allen, George H. "Students Rate Community College Faculty as Slightly Above Average." Community College Review, Summer, 1982, pp. 41-43.

APPENDIX A

The Student Opinion Questionnaire

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New York City Technical College
The City University of New York

NEW YORK CITY TECHNICAL COLLEGE/STUDENT EVALUATION OF TEACHING

The College requests your cooperation in filling out this Student Evaluation of Teaching questionnaire carefully and honestly. Your responses will be seriously considered by the instructor, department and college administration. Do not write your name. Your response will remain anonymous. THANK YOU FOR YOUR COOPERATION.

SECTION _____ SEMESTER _____

COURSE _____

INSTRUCTOR _____

SECTION NUMBER
0 1 2 3 4 5 6 7 8 9
0 1 2 3 4 5 6 7 8 9
0 1 2 3 4 5 6 7 8 9
0 1 2 3 4 5 6 7 8 9

INSTRUCTIONS

- Completely blacken in only one circle after each of the questions.
- Erase changes or corrections completely.
- Please write in any other helpful comments in the space provided.

	STRONGLY AGREE	AGREE	NOT SURE OR NEUTRAL	DISAGREE	STRONGLY DISAGREE
1. The instructor communicated in a way I understood. COMMENTS:	○	○	○	○	○
2. The instructor held my interest and attention in class. COMMENTS:	○	○	○	○	○
3. The instructor took the time to explain the material when students did not understand it. COMMENTS:	○	○	○	○	○
4. Students were encouraged to ask questions and were given meaningful answers. COMMENTS:	○	○	○	○	○
5. Students were encouraged to express their own ideas and/or participate in class activities. COMMENTS:	○	○	○	○	○
6. The instructor treated students with courtesy and respect. COMMENTS:	○	○	○	○	○
7. The instructor was available to students for discussions or conferences. COMMENTS:	○	○	○	○	○
8. The instructor generally met the class on time and held class to the end of the period. COMMENTS:	○	○	○	○	○
9. The instructor spoke clearly and could be heard in class. COMMENTS:	○	○	○	○	○
10. The grading system for the course was clearly explained. COMMENTS:	○	○	○	○	○
11. Overall the instructor's teaching was effective. COMMENTS:	○	○	○	○	○

PN 894 Rev. 10/92 50M

A. The reason(s) I am enrolled in this course is (are):

○ It is required
○ It is an elective
○ It fit into my schedule
○ Subject was of interest
○ Teacher's excellent reputation
○ Thought I could get a good grade

B. Grade I expect in this course: ○ A ○ B ○ C ○ D ○ F ○ S ○ R

C. College level credits I earned before the beginning of this semester:

○ 0-15 ○ 16-30 ○ 31-45 ○ More than 45

BEST COPY AVAILABLE

APPENDIX B

The Instructions and Script Distributed to Faculty Administering the Student Opinion Questionnaires

New York City
Technical College
The City University of New York

Inter-Office Memorandum

Date: October 1996

To: Members of the Faculty

From: Office of Enrollment Management

Subject: Fall 1996, Student Evaluation of Teaching

The Fall 1996 Student Evaluation of Teaching will take place from Wednesday, October 30, through Tuesday, November 5

This envelope contains one form for each student in your class. The questionnaire should be administered during the first 15 minutes of class. Please follow the following instructions:

1. In advance, ask for a student volunteer to collect the forms and deliver them to the appropriate office.

2. Distribute a questionnaire to each student officially enrolled in your section and, if needed, a pencil.

   Students must use #2 pencils (obtain from your department). Forms completed with any implement other than a #2 pencil cannot be scanned and, therefore, will not be included in the evaluation. Every form excluded modifies the results.

3. Print the following information on the blackboard and instruct your students to copy it onto the appropriate spaces of the form: section number, the present semester, course number, and your name. Explain to the students that the section number grid in the upper right-hand corner should be completed in the following manner:

   First digit: Blacken the appropriate circle on the top line.
   Second digit: Blacken the appropriate circle on the second line of the grid, etc.

   An example of the correct method of completing the section number grid is provided below. Inaccurate and incomplete identification of sections is a serious problem in managing this procedure

New York City
Technical College

NEW YORK CITY TECHNICAL COLLEGE/STUDENT EVALUATION OF TEACHING

Thank you for your cooperation in filling out this Student Evaluation of Teaching. Your comments will be seriously considered by the instructor and college administration. Do not write your name. Your response will remain anonymous. Thank you for your cooperation.

SECTION 4276 SEMESTER FALL 1996

COURSE ENGLISH 101

INSTRUCTOR PROF. JONES

SECTION NUMBER

	0	1	2	3	●	5	6	7	8	9
	0	1	●	3	4	5	6	7	8	9
	0	1	2	3	4	5	●	7	8	9
	0	1	2	3	4	5	6	●	8	9

Please turn over

BEST COPY AVAILABLE

4. Read aloud the instructions at the top of the form as the students read along silently. Be sure to read the sentences at the very top, requesting the student's cooperation in this important evaluation, as well as the lines under "Instructions." Urge students to make comments in the designated boxes, but caution them to avoid writing elsewhere on the form. Any stray marks will cause the questionnaire to be rejected by the scanning machine.

5. While students complete the questionnaire, you should be unobtrusive. You should be available to answer any questions, but should not be able to see anyone's responses.

6. When the questionnaires are completed, the student representative should collect the questionnaires, place them in the envelope with any unused forms and the yellow cover sheet, and seal the envelope.

7. The student representative should deliver the envelope the same day or evening to one of the following locations:

Daytime classes

Voorhees classes:	Office of the Dean of Engineering Technology, Voorhees 806
All other classes:	Office of Enrollment Management, Namm 301

Evening classes

Voorhees classes:	Desk in ground floor lobby adjoining security station (October 28, 29, November 2, 3, 5:30 to 8:30 p.m.)
All other classes:	Namm Building Coordinator, Namm 103, X5562 (Monday - Thursday: 5:00 to 10:30 p.m., Friday until 9:45 p.m.)

Saturday classes

All classes:	Namm Building Coordinator, Namm 103, X5562 (8:30 a.m.-4:30 p.m.)

The Office of Enrollment Management will then record the receipt of the returned forms and send them to the computer center for scanning. A summary report will be generated for each section, which will be sent to the appropriate dean and department chair/coordinator for distribution.

Questions about the administration of this form should be directed to me at X5984 or to the Office of Enrollment Management, Namm 301, X 5991.

Thank you for your cooperation.